

Amendments to the claims:

Claims 1-27 and 31-38 (cancelled).

28. (Previously presented) Device for producing the image of the internal structure of an object with X-rays, comprising a means (10) for positioning the object under study (5), an X-ray optical system (8), a means for relative movement of the means (10) for positioning of the object under study (5) versus the X-ray optical system (8), a means (12) for data processing and imaging wherein the X-ray optical system (8) contains one or more X-ray sources (1), an X-rays concentration means (2) for concentration of radiation from the said one or more X-ray sources (1) in the zone located inside the target area (7) of object (5) and covering the current point, to which the measurement results are attributed; one or more means (3) for transportation of excited secondary radiation and mounted close to their exit X-rays detectors (6) for the said secondary radiation, where the output from these detectors is connected to the means (12) for data processing and imaging; the means (10) for positioning of the object under study (5) and the X-ray optical system (8) are connected to the sensors (11) designed for determining the coordinates of the current point, to which the measurement results are attributed,, and those sensors are connected through their outlets to the means (12) for data processing and imaging, wherein the X-ray optical system contains more X-ray sources (1; 17); each of the X-rays concentration means designed for concentration of radiation from the said sources, and each of the means for transportation of the secondary radiation excited in the said zone to detectors (6; 20) is made as a collimator (13, 15; 18, 19), having its channels oriented towards the above X-rays concentration zone (16) and the

optical axes of the central channels of all collimators cross in the current point, to which the measurement results are attributed.

29. (Previously presented) Device according to claim 28, wherein said one or more X-ray sources (1) incorporated in the X-ray optical system are quasi-point sources and collimators (13, 15) have channels that are focused on these sources and fan towards the means for positioning the object (5) under study; between the exit of each X-ray source (1) and entrance to a respective collimator (13), there is a screen (14), which has an opening.

30. (Previously presented) Device according to claim 28, wherein said one or more X-ray sources (17) incorporated in the X-ray optical system are extended X-ray sources and collimators (18, 19) have channels that narrow down towards the means for positioning the object under study.